Table 8: Pol

MAb ID	HXB2 Location	Author's Location	Sequence	Neutralizing	Immunogen	Species (Isotype)
215 12	Pol( )	Integrase(1–58)		no	Vaccine	murine(IgG2a)
Vaccine:	*Vector/type:* recombinant protein	*HIV component:* Integrase				

References: [Bizub-Bender (1994), Levy-Mintz (1996)]

- 12: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 12, 13 and 35 form a competition group [Bizub-Bender (1994)]
- 12: Used for the creation of single-chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of Integrase activity occurs prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 [Levy-Mintz (1996)]

216 13	Pol( )	Integrase(1–58)		no	Vaccine	murine(IgG1)
Vaccine:	*Vector/type:* recombinant protein	*HIV component:* Integrase				

References: [Bizub-Bender (1994)]

- 13: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 12, 13 and 35 form a competition group [Bizub-Bender (1994)]

217 14	Pol( )	Integrase(1–58)		no	Vaccine	murine(IgG1)
Vaccine:	*Vector/type:* recombinant protein	*HIV component:* Integrase				

References: [Bizub-Bender (1994)]

- 14: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 14 and 17 form a competition group [Bizub-Bender (1994)]

218 16	Pol(dis)	Integrase(dis)		no	Vaccine	murine(IgG2a)
Vaccine:	*Vector/type:* recombinant protein	*HIV component:* Integrase				

References: [Bizub-Bender (1994)]

- 16: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized [Bizub-Bender (1994)]

219 17	Pol( )	Integrase(1–58)		no	Vaccine	murine(IgG1)
Vaccine:	*Vector/type:* recombinant protein	*HIV component:* Integrase				

References: [Bizub-Bender (1994), Levy-Mintz (1996)]

- 17: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 14 and 17 form a competition group [Bizub-Bender (1994)]
- 17: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of Integrase activity occurs prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 [Levy-Mintz (1996)]

220 1C12B1 Pol( ) RT(431–521) Vaccine murine( )

Vaccine: *Vector/type:* recombinant protein *HIV component:* RT

References: [Ferns (1991)]

- 1C12B1: Recognized both p66 and p51 in Western blot, binds to C terminus [Ferns (1991)]
- 1C12B1: UK Medical Research Council AIDS reagent: ARP384

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221 21 Pol( ) Integrase(58–141) no Vaccine murine(IgG2b)

Vaccine: *Vector/type:* recombinant protein *HIV component:* Integrase

References: [Bizub-Bender (1994), Levy-Mintz (1996)]

- 21: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized [Bizub-Bender (1994)]
- 21: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of Integrase activity occurs prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 [Levy-Mintz (1996)]

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222 32 Pol( ) Integrase(259–288) no Vaccine murine(IgG2b)

Vaccine: *Vector/type:* recombinant protein *HIV component:* Integrase

References: [Bizub-Bender (1994)]

- 32: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – MAbs 32 and 33 form a competition group [Bizub-Bender (1994)]

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223 33 Pol( ) Integrase(259–288) no Vaccine murine(IgG2b)

Vaccine: *Vector/type:* recombinant protein *HIV component:* Integrase

References: [Bizub-Bender (1994), Levy-Mintz (1996)]

- 33: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – MAbs 32 and 33 form a competition group [Bizub-Bender (1994)]
- 33: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of Integrase activity occurs prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 [Levy-Mintz (1996)]

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224 35 Pol( ) Integrase(1–58) no Vaccine murine(IgG2b)

Vaccine: *Vector/type:* recombinant protein *HIV component:* Integrase

References: [Bizub-Bender (1994)]

- 35: There appears to be two Integrase Abs with similar names: MAb 35 and 35 [Barsov (1996), Bizub-Bender (1994)]
- 35: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – the Zn finger motif is in the binding region – MAbs 12, 13 and 35 form a competition group [Bizub-Bender (1994)]

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225 3D12 Pol(dis) RT(dis) Vaccine murine(IgG2a)

Vaccine: *Vector/type:* vaccinia *HIV component:* RT

References: [Chiba (1997)]

- 3D12: There is an anti-Nef MAb that also has this name (see [Chiba (1997)])

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226 3F10 Pol(dis) RT(dis) Vaccine murine(IgG2a)

Vaccine: *Vector/type:* vaccinia *HIV component:* RT

References: [Chiba (1997)]

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227 4 Pol( ) Integrase(141–172) no Vaccine murine(IgG2b)

Vaccine: *Vector/type:* recombinant protein *HIV component:* Integrase

References: [Bizub-Bender (1994), Levy-Mintz (1996)]

- 4: There is another MAb with this ID that reacts with gp41 [Oldstone (1991), Bizub-Bender (1994)]
- 4: BALBc mice were immunized with rec integrase, hybridomas expressing anti-integrase Abs were generated, and the antibodies characterized – 4 has a low binding affinity [Bizub-Bender (1994)]
- 4: Used for the creation of single chain variable antibody fragments (SFvs) for internal cellular expression – neutralization of Integrase activity occurs prior to integration, whether the Ab is expressed in the nucleolus or the cytoplasm – relative binding affinity to IN: 12 > 17 = 33 > 21 > 4 [Levy-Mintz (1996)]

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228 6B9 Pol(dis) RT(dis) Vaccine murine(IgG2a)

Vaccine: *Vector/type:* vaccinia *HIV component:* RT

References: [Chiba (1997)]

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229 7C4 Pol(dis) RT(dis) Vaccine murine(IgG1)

Vaccine: *Vector/type:* vaccinia *HIV component:* RT

References: [Chiba (1997)]

- 7C4: Dose-dependent inhibition of polymerase activity of RT of strains IIIB, Bru and IMS-1, but not HIV-2 strains GH-1 or LAV-2 or SIV strains MAC or MND [Chiba (1997)]

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230 anti-HIV-1 RT Pol( ) RT( ) murine(IgG)

References: [di Marzo Veronese (1986), Maciejewski (1995), Wainberg & Gu(1995)]

- anti-HIV-1 RT: Cloned heavy and light chains to express Fab intracellularly, preventing HIV infection *in vitro* – this MAb was broadly cross-reactive with clinical strains and even HIV-2 [Maciejewski (1995)]
- Commentary on Maciejewski *et al.* [Wainberg & Gu(1995)]

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231 polyclonal Pol( ) p55( ) no Vaccine Rhesus macaque( )

Vaccine: *Vector/type:* virus-like particle *HIV component:* Pr55gag, anchored gp120, V3+CD4 linear domains

References: [Wagner (1998)]

- A VLP is a non-infectious virus-like particle self-assembled from HIV Pr55 gag – macaques were immunized with VLPs bound to either gp120 or V3+CD4 linear domains – gag and env CTL specific CTL were stimulated in each case, and Ab response to gag and gp120 and was elicited, but the gp120 neutralizing response occurred only with whole gp120, not V3+CD4 – despite the CTL and Ab response, immunized macaques were infected by intervenous challenge with SHIV chimeric challenge stock [Wagner (1998)]

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232 polyclonal Pol( ) RT( ) Vaccine murine( )

Vaccine: *Vector/type:* DNA *HIV component:* Gag, Pol, Vif, Env *Stimulatory Agents:* B7, IL-12

References: [Kim (1997)]

- A gag/pol, vif or CMN160 DNA vaccine, when delivered in conjunction with the plasmid encoding the co-stimulatory molecules B7 and IL-12, gave a dramatic increase in both the cytotoxic and proliferative responses in mice, as well as Ab response detected by ELISA

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233 polyclonal Pol( ) RT(203–219) Vaccine murine(IgA)

Vaccine: *Vector/type:* Salmonella *HIV component:* RT

References: [Burnett (2000)]

- A live attenuated bacterial vaccine, Salmonella SL3261-pHART, with an inserted HIV RT gene fragment in the Lpp-OmpA-HIV fusion protein, induced a lymphoproliferative Th response and fecal RT-specific IgA in BALB/c mice [Burnett (2000)]

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234 RT-4 Pol( ) RT( ) no murine(IgG2b)

References: [Li (1993), Gu (1996)]

- RT-4: Increased nevirapine and delavirdine inhibition, no effect on AZT inhibition [Gu (1996)]

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235 RT7O Pol( ) RT(231–315) Vaccine murine(IgG1)

Vaccine: *Vector/type:* recombinant protein *HIV component:* RT

Donor: B. Ferns and R. Tedder
References: [Ferns (1991)]

- RT7O: Conformational epitope located centrally in the protein – inhibited RT enzyme activity and thus may bind close to the active site of the enzyme [Ferns (1991)]
- RT7O: UK Medical Research Council AIDS reagent: ARP381

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236 RT7U Pol(dis) RT(dis 231–315) Vaccine murine( )

Vaccine: *Vector/type:* recombinant protein *HIV component:* RT

Donor: B. Ferns and R. Tedder
References: [Ferns (1991)]

- RT7U: Has a conformational epitope – reacts with p66 and p51 in WB [Ferns (1991)]
- RT7U: UK Medical Research Council AIDS reagent: ARP380
